S Janardhanan

List of Publications by Year
in descending order

111 papers	**1,513** citations	471509 **17** h-index	361022 **35** g-index
113 all docs	**113** docs citations	**113** times ranked	**851** citing authors

#	Article	IF	Citations
1	Rigid spacecraft attitude control using adaptive integral second order sliding mode. Aerospace Science and Technology, 2015, 42, 50-57.	4.8	115
2	Multirate Output Feedback Based Robust Quasi-Sliding Mode Control of Discrete-Time Systems. IEEE Transactions on Automatic Control, 2007, 52, 499-503.	5.7	113
3	Multirate-Output-Feedback-Based LQ-Optimal Discrete-Time Sliding Mode Control. IEEE Transactions on Automatic Control, 2008, 53, 367-373.	5.7	106
4	Local Self-Optimizing Control with Average Loss Minimization. Industrial & Engineering Chemistry Research, 2008, 47, 1150-1158.	3.7	104
5	Output Feedback Sliding-Mode Control for Uncertain Systems Using Fast Output Sampling Technique. IEEE Transactions on Industrial Electronics, 2006, 53, 1677-1682.	7.9	90
6	On Discretization of Continuous-Time Terminal Sliding Mode. IEEE Transactions on Automatic Control, 2006, 51, 1532-1536.	5.7	74
7	Attitude control using higher order sliding mode. Aerospace Science and Technology, 2016, 54, 108-113.	4.8	69
8	An adaptive solution for robust control based on integral high‐order sliding mode concept. International Journal of Robust and Nonlinear Control, 2015, 25, 1201-1213.	3.7	67
9	Discrete Sliding Mode Control of Systems With Unmatched Uncertainty Using Multirate Output Feedback. IEEE Transactions on Automatic Control, 2006, 51, 1030-1035.	5.7	61
10	Spacecraft Anti‐Unwinding Attitude Control Using Second‐Order Sliding Mode. Asian Journal of Control, 2018, 20, 455-468.	3.0	56
11	Sliding mode control design via reduced order model approach. International Journal of Automation and Computing, 2007, 4, 329-334.	4.5	41
12	Output feedback discrete-time sliding mode control for time delay systems. IET Control Theory and Applications, 2006, 153, 387-396.	1.7	26
13	Rigid Spacecraft Attitude Control Using Adaptive Non-singular Fast Terminal Sliding Mode. Journal of Control, Automation and Electrical Systems, 2015, 26, 115-124.	2.0	26
14	Discrete‐time higher‐order sliding mode control of systems with unmatched uncertainty. International Journal of Robust and Nonlinear Control, 2019, 29, 135-152.	3.7	26
15	Discrete higher order sliding mode: concept to validation. IET Control Theory and Applications, 2017, 11, 1098-1103.	2.1	25
16	Optimal discrete higher‐order sliding mode control of uncertain LTI systems with partial state information. International Journal of Robust and Nonlinear Control, 2017, 27, 4104-4115.	3.7	21
17	Trajectory tracking of two wheeled mobile robot using higher order sliding mode control. , 2013, , .		20
18	Sliding mode control-based linear functional observers for discrete-time stochastic systems. International Journal of Systems Science, 2017, 48, 3246-3253.	5.5	18

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19	A finite-time convergent continuous time sliding mode controller for spacecraft attitude control. , 2010, , .		17
20	A Novel Second-order Recursive Reaching Law based Discrete-time Sliding Mode Control. IFAC-PapersOnLine, 2016, 49, 225-229.	0.9	17
21	Relay-free Second Order Sliding Mode Control. , 2006, , .		16
22	A review of parametric model order reduction techniques. , 2012, , .		14
23	An efficient control of rigid robotic manipulator with uncertainties using higher order sliding mode control. International Journal of Modelling, Identification and Control, 2013, 19, 179.	0.2	14
24	Configuration Control of Planar Underactuated Robotic Manipulator using Terminal Sliding Mode. IFAC-PapersOnLine, 2016, 49, 148-153.	0.9	14
25	Piece-wise Quasi-linear Approximation for Nonlinear Model Reduction. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2013, 32, 2009-2013.	2.7	13
26	Attitude control of magnetic actuated spacecraft using super-twisting algorithm with nonlinear sliding surface. , 2012, , .		12
27	Adaptive Discrete-Time Higher Order Sliding Mode. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 612-616.	3.0	12
28	New design methodology for adaptive switching gain based discrete-time sliding mode control. International Journal of Control, 2021, 94, 1081-1088.	1.9	12
29	Discrete-Time Sliding Mode Control Using Multirate Output Feedback. , 0, , 351-371.		11
30	Sliding mode control of uncertain fractional order systems with delay. International Journal of Control, 2020, 93, 934-943.	1.9	10
31	Analysis of Multidimensional Time Delay Systems Using Lambert W Function. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	1.6	10
32	A NEW ALGORITHM FOR DISCRETE-TIME SLIDING MODE CONTROL USING INFREQUENT OUTPUT OBSERVATIONS. Asian Journal of Control, 2005, 7, 310-318.	3.0	9
33	Open‐Loop Functional Observer and State Feedback for Linear Systems Using Multirate Output Sampling. Asian Journal of Control, 2014, 16, 1897-1902.	3.0	9
34	Continuity and order of continuity in discrete-time higher order sliding mode. , 2015, , .		9
35	Inventory control for nonperishable and perishable goods based on model predictive control. International Journal of Systems Science: Operations and Logistics, 2020, 7, 361-373.	3.0	9
36	Rigid Spacecraft Fault-Tolerant Control Using Adaptive Fast Terminal Sliding Mode. Studies in Computational Intelligence, 2015, , 381-406.	0.9	9

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37	Sliding Mode Control Design via Reduced Order Model Approach. , 2006, , .		8
38	Trajectory based methods for nonlinear MOR: Review and perspectives. , 2012, , .		8
39	Finite time eigenaxis rotation using quaternion feedback. , 2017, , .		8
40	Functional observer-based sliding mode controller design for discrete-time stochastic LTI systems with unmatched uncertainty. International Journal of Systems Science, 2019, 50, 1179-1189.	5.5	8
41	Stochastic Sliding Mode Control for Parametric Uncertain Systems Using Functional Observer. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 1346-1350.	3.0	8
42	Approximate Snapshot-ensemble Generation for Basis Extraction in Proper Orthogonal Decomposition. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 917-921.	0.4	7
43	Adaptive parameter space sampling in matrix interpolatory pMOR. , 2015, , .		7
44	Stochastic variable structure control of discrete time LTI systems with bounded disturbances. , 2015, , .		7
45	Management of Inventory for Periodically Reviewed Goods Using Discrete Higher Order Sliding Mode. IETE Journal of Research, 2017, 63, 552-557.	2.6	7
46	Stochastic discrete higher order sliding mode control. , 2017, , .		7
47	Design of multirate output sampling based linear functional observer and state feedback. , 2010, , .		6
48	Nonlinearity-aware sub-model combination in trajectory based methods for nonlinear Mor. Mathematics and Computers in Simulation, 2013, 94, 127-144.	4.4	6
49	A finite-time convergent sliding mode control for rigid underactuated robotic manipulator. Systems Science and Control Engineering, 2014, 2, 493-499.	3.1	6
50	Discrete Wide-area Power System Damping Controller using Periodic Output Feedback. Electric Power Components and Systems, 2016, 44, 1892-1903.	1.8	6
51	Adaptive Higher Order Sliding Mode Control for Nonlinear Uncertain Systems. IFAC-PapersOnLine, 2018, 51, 341-346.	0.9	6
52	Frequency-Domain Modeling of Dual-Active-Bridge Converter Based on Harmonic Balance Approach. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2022, 3, 166-176.	3.9	6
53	Management of periodically reviewed inventory systems with discrete variable structure control. , 2016, , .		5
54	A modified discrete-time sliding surface design for unmatched uncertainties. , 2017, , .		5

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55	Functional observer-based sliding mode control for linear discrete-time-delayed stochastic systems. International Journal of Systems Science, 2018, 49, 1895-1907.	5.5	5
56	Multirate Output Feedback Sliding Mode Controller for Sensorless Induction Motor. , 0, , .		4
57	Multirate Output Feedback based Digital Redesign of Sliding Mode Control Algorithms. , 0, , .		4
58	Multirate output feedback sliding mode control design using reduced order functional observer. , 2010, , .		4
59	Sliding mode control of uncertain systems using multirate output feedback functional observer. , 2012, , .		4
60	Multirate output sampling linear functional observer-based state feedback for systems with delay in state variables. International Journal of Modelling, Identification and Control, 2013, 20, 47.	0.2	4
61	Spacecraft attitude control using non-singular finite time convergence fast terminal sliding mode. International Journal of Instrumentation Technology, 2013, 1, 124.	0.1	4
62	Second order sliding mode controller and online path planning for space rovers. International Journal of Modelling, Identification and Control, 2014, 21, 321.	0.2	4
63	A smart higher order sliding mode control of rigid articulated robotic manipulator with passive joints. International Journal of Modelling, Identification and Control, 2015, 23, 260.	0.2	4
64	Taylor Discretization Based Class of Exactly Discretizable Nonlinear Systems. IFAC-PapersOnLine, 2016, 49, 510-515.	0.9	4
65	Functional observer design for linear discrete-time stochastic system. , 2017, , .		4
66	Taylorâ€"Lie formulation based discretization of nonlinear systems. International Journal of Dynamics and Control, 2018, 6, 459-467.	2.5	4
67	Sliding mode control design for parametric uncertain stochastic systems with state delay using functional observer. IET Control Theory and Applications, 2019, 13, 562-571.	2.1	4
68	Output feedback control of practical launch vehicle systems. , 0, , .		3
69	Multirate Functional Observer Based Discrete-Time Sliding Mode Control. Lecture Notes in Control and Information Sciences, 2013, , 267-281.	1.0	3
70	Modelling and simulation strategy for parametric transient electromagnetic simulations. International Journal of Modelling, Identification and Control, 2013, 18, 251.	0.2	3
71	Automated and efficient order selection in Krylov-based model order reduction. International Journal of Modelling, Identification and Control, 2013, 18, 332.	0.2	3
72	Trajectory piece-wise quasi-linear approximation of large non-linear dynamic systems. International Journal of Modelling, Identification and Control, 2013, 19, 369.	0.2	3

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73	Rigid spacecraft attitude tracking using finite time sliding mode control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 263-270.	0.4	3
74	Sliding Mode Control of Uncertain Time Delay System using Lambert W Function. IFAC-PapersOnLine, 2016, 49, 173-177.	0.9	3
75	Efficient Nonlinear Model Predictive Control for Discrete System with Disturbances. , 2018, , .		3
76	Robust Quasi-Sliding Mode Control of Discrete-time Systems using Multirate Output Feedback. , 0, , .		2
77	Digital Redesign of Sliding Mode Control Algorithms Using Saturation Function: State and Multirate Output Feedback Approach. , 2006, , .		2
78	QFT Based Control for Twin Rotor MIMO System. , 2011, , .		2
79	Multirate Output Feedback Based Optimal Filtering and Control for Discrete-Time LTI Systems. Advanced Materials Research, 0, 433-440, 6514-6520.	0.3	2
80	AFAS - adaptive fast approximate simulation for non-linear model reduction. International Journal of Modelling, Identification and Control, 2013, 19, 113.	0.2	2
81	A direct method for stabilization of time delay systems. , 2015, , .		2
82	Reduced output feedback based discrete-time first-order and higher-order sliding mode control. , 2017, , .		2
83	Linear Functional Observers for Unforced Multi-Output Nonlinear Systems. IFAC-PapersOnLine, 2018, 51, 708-712.	0.9	2
84	LQR Control of Multiple Product Inventory Systems for Profit and Warehouse Capacity Maximization. , 2020, , .		2
85	Laguerre function-based model predictive control for multiple product inventory systems. International Journal of Systems Science: Operations and Logistics, 2022, 9, 133-142.	3.0	2
86	4 Multirate Output Feedback based Discrete-time Quasi-Sliding Mode Control of Time Delay Systems. , 0, , 51-70.		2
87	Adaptive Discrete-Time Higher Order Sliding Mode. , 2019, , 71-81.		2
88	Computationally Efficient Nonlinear MPC for Discrete System with Disturbances. International Journal of Control, Automation and Systems, 2022, 20, 1951-1960.	2.7	2
89	Sensorless control of induction motor using fast output sampling technique. , 0, , .		1
90	Tracking of Twin Spool Gas Turbine Using Reduced Output Feedback Sliding Mode Control. , 2011, , .		1

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91	Controller Design of Twin Spool Gas Turbine using Reduced Output Feedback Sliding Mode Control. IETE Journal of Research, 2012, 58, 367.	2.6	1
92	DSP based tracking of twin spool gas turbine using reduced output feedback sliding mode control. , 2012, , .		1
93	Parameterized model order reduction for fast transient electromagnetic simulations. , 2012, , .		1
94	A robust third order sliding mode control of rigid underactuated robotic manipulator. , 2013, , .		1
95	Minimum variance functional filtering for multirate sampled systems. , 2013, , .		1
96	Fast terminal sliding mode control for twin rotor multi-input multi-output system. , 2015, , .		1
97	Discretization of duffing oscillator dynamics by Taylor-Lie formulation based method. , 2017, , .		1
98	Functional Observer-Based Sliding Mode Control for Discrete-Time Stochastic Systems ÂUnmatched Uncertainty. Lecture Notes in Control and Information Sciences, 2020, , 45-59.	1.0	1
99	Discrete Stochastic Sliding Mode with Functional Observation. Studies in Systems, Decision and Control, 2021, , 119-144.	1.0	1
100	Computationally Efficient Functional Observer for LTI System Based on a Multirate Output Sampling Algorithm. Advanced Materials Research, 0, 403-408, 3875-3883.	0.3	0
101	State Based Functional Observer Design for Linear Uncertain Systems Using Multirate Output Sampling. Advanced Materials Research, 2011, 403-408, 3859-3866.	0.3	0
102	Fast simulation of nonlinear dynamical systems for application in reduced order modelling. , 2014, , .		0
103	Multirate output functional observer in linear feedback for systems with unknown inputs. , 2014, , .		0
104	Output feedback optimal control of fractional order delayed systems. , 2017, , .		0
105	A Robust Sliding Mode Control Approach for Uncertain Delay Systems Using Lambert W Function. , 2018, , .		0
106	Adaptive Sliding Mode Controller using Finite-Time Functional Observer for Continuous-time LTI Systems with Unknown Inputs. , 2019, , .		0
107	Discrete-Time Higher Order Sliding Mode. , 2019, , 15-32.		0
108	Optimal Discrete-Time Higher Order Sliding Mode. , 2019, , 33-48.		0

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109	Discrete-Time Higher Order Sliding Mode Control of Unmatched Uncertain Systems. , 2019, , 49-69.		0
110	Stochastic Sliding Mode Control for Parametric Uncertain Systems Using a Functional Observer. Lecture Notes in Control and Information Sciences, 2020, , 61-70.	1.0	0
111	Preliminary Concepts. Lecture Notes in Control and Information Sciences, 2020, , 1-24.	1.0	0